IN THE CLAIMS

Please amend the claims as indicated.

1. (ORIGINAL) A method comprising the steps of:

a) providing subscriber loop pull-down circuitry operating in a first voltage domain, wherein the subscriber loop pull-down circuitry decreases at least one of a tip and a ring line current in response to a corresponding pull-down control signal; and

b) providing control circuitry operating in a second voltage domain wherein the first and second voltage domains are substantially distinct, wherein the control circuitry varies the pull-down control signal in response to a sensed current corresponding to an associated one of a tip pull-down current and a ring pull-down current.

2. (ORIGINAL) The method of claim 1 further comprising the steps of:

c) providing pull-up circuitry, wherein the pull-up circuitry increases the at least one of the tip and ring currents in response to a corresponding pull-up control signal provided by the control circuitry.

3. (ORIGINAL) The method of claim 2 wherein for each of the tip and ring lines, the pull-up and pull-down control signals are mutually exclusive such that the control circuitry does not provide a pull-up and a pull-down control signal for a selected line substantially simultaneously.

4. (ORIGINAL) The method of claim 1 further comprising the step of

c) providing a feedback isolation stage, wherein the feedback isolation stage converts voltages sensed at each end of a tip sense impedance and a ring sense impedance into first and second currents, wherein the sensed current for a selected one of the tip and ring lines represents a difference between the first and second currents for the corresponding selected one of the tip and ring sense impedances, wherein a difference between the first and second

currents for each of the tip and ring lines is calculated in the second voltage domain.

5. (ORIGINAL) The method of claim 1 further comprising the step of:

c) providing a control isolation stage, wherein the control isolation stage provides the pull-down control signals from the control circuitry operating in the second voltage domain to the pull-down circuitry operating in the first voltage domain.

6. (ORIGINAL) A subscriber line interface circuit apparatus, comprising:

pull-down circuitry operating in a first voltage domain, wherein the pull-down circuitry varies a current of a selected one of a tip and a ring line in response to a pull-down control signal;

control circuitry providing the pull-down control signal, the control circuitry operating in a second voltage domain substantially distinct from the first voltage domain;

a control isolation stage coupled to provide the pull-down control signal from the control circuitry to the pull-down circuitry; and

a feedback isolation stage providing feedback signals from the pull-down circuitry to the control circuitry, wherein the feedback signals represent a sensed pull-down current associated with the selected line , wherein the control circuitry provides the pull-down control signal for the selected line in response to the sensed pull-down current.

7. (ORIGINAL) The apparatus of claim 6 wherein the pull-down circuitry further comprises:

a first pull-down transistor having a first terminal coupled to the selected line of the subscriber line and a second terminal coupled to a battery feed node through a first sense impedance, wherein a first sense impedance current is the sensed pull-down current.

8. (ORIGINAL) The apparatus of claim 7 wherein the sense impedance comprises a resistor.

9. (ORIGINAL) The apparatus of claim 8 wherein the sense impedance further comprises a capacitor.

10. (ORIGINAL) The apparatus of claim 7 wherein the sense impedance consists of passive components.

11. (ORIGINAL) The apparatus of claim 6 wherein the feedback isolation stage consists of passive components.

12. (ORIGINAL) The apparatus of claim 11 wherein the feedback isolation stage comprises resistors.

13. (ORIGINAL) The apparatus of claim 6 wherein the control isolation stage comprises active components.

14. (ORIGINAL) The apparatus of claim 13 wherein the active components are coupled in a common base configuration.

15. (ORIGINAL) The apparatus of claim 13 wherein the active components comprise bipolar junction transistors coupled in common base configuration.

16. (ORIGINAL) The apparatus of claim 13 wherein the active components comprise field effect transistors coupled in common gate configuration.

17. (CURRENTLY AMENDED) An apparatus, comprising:

a current mirror providing an inverted first sense current from a received first sense current; and

a transimpedance amplifier coupled to receive the inverted first sense current and a second sense current, the transimpedance amplifier providing a sense signal proportional to a difference between the first and second sense currents, wherein the sense signal is proportional to a pull-down current flowing into a battery feed node of a subscriber loop, wherein the pull-down current is approximately the same as one of the subscriber loop tip and ring currents associated with the first and second sense currents.

18. (ORIGINAL) The apparatus of claim 17 further comprising:

a differential amplifier providing an error signal indicative of a difference between the sense signal and a desired signal; and

a linefeed driver control circuit providing a pull-down control signal to vary the associated one of the tip and ring currents of the subscriber loop in response to the error signal.

19. (ORIGINAL) A subscriber line interface circuit apparatus comprising:

a linefeed driver responsive to pull-up and pull-down control signals to vary at least a selected one of a tip and a ring current of a subscriber loop; and

a signal processor sensing a pull-down current of the selected one of the tip and ring lines into a battery feed node, the signal processor generating pull-down control signals for the selected current in response to the sensed pull-down current, wherein the linefeed driver does not reside within a same integrated circuit package as the signal processor.

20. (ORIGINAL) The apparatus of claim 19 wherein the signal processor calculates the selected current without directly sensing either the tip or ring lines of the subscriber loop.